INDEX

SOIL MECHANICS AND FOUNDATION ENGINEERING

Numbers 1-6, 1969

SOIL MECHANICS AND FOUNDATION ENGINEERING

Numbers 1-6, 1969

(A translation of Osnovaniya, Fundamenty i Mekhanika Gruntov)

A

Abelev, Yu. M. - 214

B

Babichev, V. P. - 92
Baramishvili, Ya. P. - 251
Barkan, D. D. - 431
Barshevskii, B. N. - 16
Barvashov, V. A. - 60
Belevitina, N. Sh. - 257
Belous, N. P. - 123
Belyaev, V. D. - 279
Bleskina, N. A. - 257
Bocharov, A. M. - 412
Borzenko, M. N. - 58
Budanov, V. G. - 412
Budin, A. Ya. - 407
Burov, V. P. - 343
Byalik, D. Ya. - 356

C

Chasov, É. I. - 367
Chepelev, V. V. - 112
Cherkasov, I. I. - 393
Chernyi, G. I. - 189
Chernyi, I. P. - 51

D

Danilov, A. I. - 246
Davydova, N. A. - 182
Dorfman, A. G. - 235
Dudintseva, I. L. - 235

E

Egorov, A. I. - 77

F

Fadeev, G. P. - 195
Fayans, B. L. - 60
Fotieva, N. N. - 131, 313

G

Geniev, G. A. - 448
Gimsel'berg, Ya. D. - 367
Glushkov, G. I. - 207
Gokhfel'd, B. L. - 179
Gol'dshtein, L. M. - 323
Gol'dshtein, M. N. - 3, 235, 290, 420, 442
Gomes, Ts. - 356
Gorbunov-Posadov, M. I. - 308
Grigoryan, A. A. - 198
Gusev, Yu. M. - 126

I

Ibragimov, M. N. - 51, 251, 257

K

Karpov, V. M. - 44
Kazarnovskii, V. S. - 195
Khamov, A. P. - 213, 370
Klubin, P. I. - 318
Kodryanova, R. M. - 239
Kol'tsov, E. M. - 416
Komanovskii, Z. S. - 29
Korzhenko, L. I. - 261
Kovalenko, N. P. - 119
Kravtsov, G. I. - 154
Krivorotov, A. P. - 20
Krivtsov, V. A. - 242
Kronik, Ya. A. - 38
Krutov, V. I. - 108, 214
Kul'chitskii, G. B. - 186
Kurtov, V. I. - 375

L

Laletin, N. V. - 289
Levitin, Yu. I. - 412
Levitskii, B. I. - 430
Litvinov, I. M. - 272
Lobanova, G. L. - 95
Lomize, G. M. - 154
Lukinskaya, I. G. - 58
Lychko, Yu. M. - 393
Lytkin, V. A. - 131, 313

M

Malakhova, K. V. - 32
Malyshev, M. V. - 219, 292, 302
Mamedov, K. M. - 382
Mamonov, V. M. - 198
Manoilin, V. I. - 35
Markin, B. P. - 137
Mausumbaev, B. S. - 343
Mednikov, I. A. - 89
Mel'nikov, B. N. - 99
Meschyan, S. R. - 10
Mikhalyuk, A. V. - 189
Mikheev, V. V. - 393
Mochalov, I. P. - 204
Molokanov, N. M. - 364
Morozova, L. K. - 58
Muftakhov, A. Dz. - 286
Mulyukov, É. I. - 261
Mustafaev, A. A. - 382

N

Narbut, R. M. - 440

O

Opershtein, V. L. - 29, 115
Orlov, E. I. - 424
Ostrov, V. I. - 70, 293

P

Pakhmanov, V. A. - 29
Petrukhin, V. P. - 393
Plevako, V. P. - 165
Pol'shin, D. E. - 70, 293
Poltev, M. P. - 211
Popov, T. I. - 359

R

Rabinovich, I. G. - 173
Radugin, A. E. - 103
Ramin, P. E. - 285
Repnikov, L. N. - 308
Rivkin, S. A. - 402

Rogachevskii, L. I. - 77
Romanenko, I. I. - 256
Rudnitskii, N. Ya. - 32
Ryazanov, N. S. - 231
Rzhanitsyn, B. A. - 257

S

Samoilov, V. P. - 412
Sergeev, I. T. - 84
Shafarenko, E. M. - 265
Shalagin, A. P. - 176
Shaposhnikov, M. A. - 25
Shperling, V. É. - 412
Shvartsman, D. - 144
Shvets, V. B. - 99
Skuibin, F. T. - 412
Slavorosov, A. Kh. - 142
Slavorosova, E. A. - 437
Smorodinov, M. I. - 435
Snezhko, O. V. - 140
Sokolov, N. M. - 374
Sokolovich, V. E. - 257
Solov'ev, Yu. I. - 81
Sotnikov, S. N. - 373
Stavnitser, L. R. - 448
Stepanov, G. N. - 69
Stroganov, A. S. - 217
Sytnik, Yu. V. - 32

T

Trofimenkov, Yu. G. - 248, 431, 442
Tsai, T. N. - 151
Tschebotarioff, G. P. - 66
Tseitlin, M. G. - 337
Tsytovich, N. A. - 38, 444

U

Ukhov, S. B. - 38

V

Valeev, R. Kh. - 346
Vasil'eva, A. A. - 95
Vinogradova, G. N. - 204
Vlasov, Ty. V. - 108
Votyakov, I. F. - 170
Vronski, A. V. - 160

Y

Yagolkovskii, S. N. - 227
Yurik, Ya. V. - 428
Yushin, A. I. - 330

Z

Zakharenkov, M. M. - 282
Zakharov, M. S. - 54
Zanyatina, L. G. - 293
Zaretskii, Yu. K. - 265, 377
Zelenskii, V. S. - 388
Zhikhovich, V. V. - 398
Zhukov, N. V. - 352
Zhukov, V. F. - 47, 372
Zinov'ev, R. K. - 242
Zobachev, N. M. - 95, 393
Zvereva, L. A. - 213

SOIL MECHANICS AND FOUNDATION ENGINEERING
Numbers 1-6, 1969

(A translation of Osnovaniya, Fundamenty i Mekhanika Gruntov)

Number 1 January-February, 1969

	Engl.	Russ.
Let Us Befittingly Celebrate the Glorious Anniversary!	1	1
SOIL MECHANICS		
Application of Calculus of Variations to Investigations of Bases and Slopes —M. N. Gol'dshtein	3	2
Relationships Describing the Process of Deformation of Clay Soils in Time —S. R. Meschyan	10	6
Determination of Deformability Characteristics of a Soil, Considered as a Medium, Continuously Nonhomogeneous in Depth—B. N. Barshevskii	16	9
State of Stress of a Sand Mass under a Plate Lying at a Shallow Depth—A. P. Krivorotov.	20	11
STRUCTURAL PROPERTIES OF SOILS		
The Strength of Clay Sapropel—M. A. Shaposhnikov	25	14
FOUNDATION ENGINEERING		
Precast Frame Foundation for Mills—V. A. Pakhmanov, Z. S. Komanovskii, and V. L. Opershtein	29	17
Preparation of Sand Beds for Foundations—N. Ya. Rudnitskii, Yu. V. Sytnik, and K. V. Malakhova	32	19
An Experimental Investigation of the Applicability of the Theory of Linear Vibrations to the Dynamic Design of Pile Foundations—V. I. Manoilin	35	21
Artificial Salting of Grounds to Combat the Hazard of Frost Heaving—Ya. A. Kronik, S. B. Ukhov, and N. A. Tsytovich	38	22
The Role of Vacuum in the Process of Moisture Migration during the Freezing of the Soil (Submitted for Discussion)—V. M. Karpov	44	26
Modulus of Deformation of Thawing Subgrade—V. F. Zhukov	47	28
FROM THE EXPERIENCE OF CONSTRUCTION ORGANIZATIONS		
Experience in Fixing Water-Laden Sand by Means of Carbamide Resin —I. P. Chernyi and M. N. Ibragimov	51	30
ADVICE TO DESIGNERS AND INVESTIGATORS		
Use of Geological Similarity When Analyzing Foundation Conditions—M. S. Zakharov	54	32
Problems in Connection with Obtaining Soil Samples in Field and Laboratory Conditions—M. N. Borzenko, I. G. Lukinskaya, and L. K. Morozova	58	34
Analysis of Elastic Pile Bents Allowing for Interaction between the Piles —V. A. Barvashov and B. L. Fayans	60	35
DISCUSSIONS		
On More Precise Definition of Translated Technical Terms—G. P. Tschebotarioff	66	38
INFORMATION		
All-Union Conference on the Dynamics of Pile Foundations—G. N. Stepanov	69	39

	Engl.	Russ.
Works of Soil Mechanics and Foundation Engineering Published in 1967-1968 —V. I. Ostrov and D. E. Pol'shin	70	41

Number 2 March-April, 1969

Construction of a Memorial Center in Ul'yanovsk — L. I. Rogachevskii and A. I. Egorov	77	1
SOIL MECHANICS		
Provision of Linearity in the Law of Distribution of Critical Pressures on a Foundation Bed — Yu. I. Solov'ev	81	3
The Application of Probability-Processes Equations to the Theory of Stress Distribution in Non-Cohesive Soil Foundation Beds (Discussion) — I. T. Sergeev	84	5
Equivalent Characteristic of Soil for Plates on an Elastic Base of a Finite Number of Inhomogeneous Layers — I. A. Mednikov	89	7
Concerning the Nomenclatural Criteria of Slump Proneness of Macroporous Soils — V. P. Babichev	92	9
The Use of Ultrasonics for Determining Soil Density — A. A. Vasil'eva, N. M. Zobachev, and G. L. Lobanova	95	11
Stability of Shallow Substructures under the Conditions of Deep Seasonal Freezing — V. B. Shvets and B. N. Mel'nikov	99	13
Increase of Bearing Capacity of Short Piles with Time — A. E. Radugin	103	16
Erection of Columnar Substructures in Depressions Obtained by Tamping of Sagging Grounds — V. I. Krutov and Ty. V. Vlasov	108	19
Effect of Anode Design on the Efficiency of Electrochemical Induration of Clayey Soils — V. V. Chepelev	112	22
Waterproofing of the Walls of Open Caissons — V. L. Opershtein	115	24
EXPERIENCE OF CONSTRUCTION ORGANIZATIONS		
Methods of Technical Reclamation of Peat Soils — N. P. Kovalenko	119	26
Geodetic Works to Secure Vertical Sinking of Drop Shafts — N. P. Belous	123	28
DESIGN AND RESEARCH AIDS		
Tilting of Annular Footings Considering Specific Soil Deformations during Compression and Decompression — Yu. M. Gusev	126	29
Deflection of a Foundation Caused by Driving a Circular Tunnel near It — N. N. Fotieva and V. A. Lytkin	131	32
DISCUSSIONS		
Remarks on the Article "On Standard Criteria of Sag in Loess Soils" by V. P. Anan'ev and Ya. D. Gil'man — B. P. Markin	137	35
Observations Concerning Provisional Design Guidelines for Residential and Public Buildings in the Far Northern Regions	138	36
INFORMATION		
Fifth All-Union Conference-Seminar for the Exchange of Construction Experience under Conditions of Cold Climate — O. V. Snezhko	140	37
First Scientific and Technical Conference on Geodetic-Surveying Works in Construction — A. Kh. Slavorosov	142	38
REVIEWS AND BIBLIOGRAPHY		
Prof. Eng. Hugo Lehr. Foundations. Examples of Calculation — Reviewed by D. Shvartsman	144	39
Works on Soil Mechanics and Foundation Engineering Published in 1968	146	40

Number 3 May-June, 1969

Ensurance of the Reliability of the Bases of Structures in the Museum City of Shushenskoe – T. N. Tsai 151 1

SOIL MECHANICS

Field Investigations of Stress-Strain State for Loess Foundations under Axis-Symmetrical Conditions – G. M. Lomize and G. I. Kravtsov 154 3

Considering the Non-linear Relationship between the Settling of the Foundation Bed and Load in the Computation of Rigid Beams of Non-uniform Foundations – A. V. Vronski . 160 6

A Point Force inside a Pair of Cohering Half-Spaces – V. P. Plevako 165 9

Deformation Computations for Highly Compressible Foundation Beds, Allowing for Soil-Compressibility Variation with Depth – I. F. Votyakov 170 11

CONSTRUCTION PROPERTIES OF SOILS

Suggestions on Consideration of the Thermal Effect of Heated Buildings on Freezing Depth of Soil (Discussion) – I. G. Rabinovich 173 13

Deformation of Eluvial Coarse Detrital Soils during Freezing – A. P. Shalagin 176 15

Some Construction Properties of Western Sivash Silts – B. L. Gokhfel'd 179 16

Dilatometer Theory – N. A. Davydova 182 18

Errors in Determining Soil Deformation Modulus – G. B. Kul'chitskii 186 20

UNDERGROUND STRUCTURES

Cracks in the Walls of Underground and Open-Cut Workings Made by Blasting – G. I. Chernyi and A. V. Mikhalyuk 189 22

CONSTRUCTION UNDER SPECIAL SOIL CONDITIONS

Investigation of the Bearing Capacity of Horizontally Loaded Piles in Slump-type Soils – V. S. Kazarnovskii and G. P. Fadeev 195 25

Determination of the Bearing Capacity of a Driven Friction Pile in Soils of Type I Slump Proneness – A. A. Grigoryan and V. M. Mamonov 198 27

Progress of Deformations in Intensely Sagging Loess Grounds in the Course of Wetting – I. P. Mochalov and G. N. Vinogradova 204 30

ADVICE TO DESIGNERS AND INVESTIGATORS

Dynamic Load Effect on Footings over Elastic Layers – G. I. Glushkov 207 32

Prevention of Deformations of Structures with Wall Beams – M. P. Poltev 211 35

INFORMATION

Conference-Seminar on Exchange of Experience in the Use of Static Penetration Sounding in Site Explorations – A. P. Khamov and L. A. Zvereva 213 35

REVIEWS AND BIBLIOGRAPHY

V. Z. Zurnadzhi, V. P. Anan'ev, Ya. D. Gil'man, and Yu. Dezhin. Bases and Foundations on Slump-Type Loess – Reviewed by Yu. M. Abelev and V. I. Krutov 214 36

T. Jeske, T. Przedecki, and B. Rossinski. Soil Mechanics – Reviewed by A. S. Stroganov . 217 37

Transactions of the Geotechnic Conference on Shear Strength of Soils and Rocks (Oslo, Norway) – V. M. Malyshev 219 37

All-Union Conference on Construction on Weak Soils 220 37

OBITUARIES

Vladimir Alekseevich Zurnadzhi 221 38

Aleksandr Vasil'evich Pataleev 222 38

Number 4 July-August, 1969

Scientists Contribute to the Lenin Centennial	223	1
Effect of the Adhesion of an Elastic Layer to an Underlying Base on the Design of Superimposed Beams—S. N. Yagolkovskii	227	3
Determination of Initial Critical Load on Soil under Structures—N. S. Ryazanov	231	5
Application of Variational Method to the Computation of Earth Pressure on Retaining Walls—M. N. Goldshtein, I. L. Dudintseva, and A. G. Dorfman	235	8
Determination of the Dimensions of the Deformation Zone in Loessial Soil Saturated with Water—R. M. Kodryanova	239	10
Effect of the Difference of Deformative Properties of the Soil and Strain Gauge on the Recording of Dynamic Stresses—R. K. Zinov'ev and V. A. Krivtsov	242	12
Improvement of the Method of Determining Soil Density and Water Content by N. P. Kovalev's Instrument—A. I. Danilov	246	14
FOUNDATION ENGINEERING		
Accuracy of Determining the Bearing Capacity of Piles Based on Results of Static Penetration Sounding of Soils—Yu. G. Trofimenkov	248	16
Soil-Cement, Frequently Tamped End-Bearing Piles under Conditions of Type II Slump-Prone Soils—Ya. P. Baramishvili and M. N. Ibragimov	251	17
Height of the Filling under Buildings with Bases of Frozen Soil—I. I. Romanenko	256	20
CHEMISTRY IN FOUNDATION ENGINEERING		
Experience in Chemical Grouting of Loose Carbonate Soils with "Sumisoil" and Carbamide Resin—B. A. Rzhanitsyn, V. E. Sokolovich, M. N. Ibragimov, N. Sh. Belevitina, and N. A. Bleskina	257	21
Experience in Grouting Bashkir Soils with Urea-Formaldehyde Resin—L. I. Korzhenko and É. I. Mulyukov	261	23
UNDERGROUND STRUCTURES		
States of Stress and Strain in the Neighborhood of a Spherical Underground Cavity—Yu. K. Zaretskii and E. M. Shafarenko	265	25
In the State Construction Committee of the USSR	271	28
CONSTRUCTION UNDER SPECIAL SOIL CONDITIONS		
Conduction of Blasting Works for Deep Compaction of Slump-Prone Loess Soils in a Built-Up Area—I. M. Litvinov	272	29
Third All-Union Conference on Bases, Foundations, and Soil Mechanics	278	32
Compaction Control of Settlement Prone Soils by Static Probing—V. D. Belyaev	279	33
FROM THE EXPERIENCE OF CONSTRUCTION ORGANIZATIONS		
Experience with the Construction of a Nine-Story Building on a Sand Fill—M. M. Zakharenkov	282	34
Strengthening a Chimney Foundation—P. E. Ramin	285	36
Estimation of Infiltration in Industrial Sites—A. Dz. Muftakhov	286	36
Calculation of the Tilt of a Circular Rigid Foundation—N. V. Laletin	289	38
REVIEWS AND BIBLIOGRAPHY		
N. N. Maslov. I. Principles of Soil Mechanics and Engineering Geology. II. Long-Term Stability and Displacement Deformations of Retaining Structures—Reviewed by M. N. Gol'dshtein	290	38
Foreign Publications on Soil Mechanics—M. V. Malyshev	292	39
Works on Soil Mechanics and Foundation Engineering Published in 1968-1969—L. G. Zanyatina, V. I. Ostrov, and D. E. Pol'shin	293	40

Engl./Russ.

Number 5 September-October, 1969

Special Efforts of the Moscow Foundation Engineers in Honor of Lenin 299 1

SOIL MECHANICS

Application of the Hubert-Mises-Botkin Strength Criterion to Unconsolidated Sands —M. V. Malyshev 302 3

Calculation of Anchor Plate for the Ground Consolidation Stage—L. N. Repnikov and M. I. Gorbunov-Posadov 308 6

Design of Deep Anchor Plates—N. N. Fotieva and V. A. Litkin 313 8

Distribution of Contact Pressures between a Plate with a Base That is not Flat and an Elastic Half-Plane—P. I. Klubin 318 10

Approximate Solution of the Problem of Three-Dimensional Limiting Equilibrium of Soils—L. M. Gol'dshtein 323 12

FOUNDATION ENGINEERING

Design of Strip Foundations Subjected to Horizontal Base Deformations Taking into Account Foundation Flexure—A. I. Yushin 330 16

Sinking a Cylindrical Casing into the Ground by Means of Lengthwise and Rotary Vibrations—M. G. Tseitlin 337 19

Experimental Study of Pile Sinking by Pressure—V. P. Burov and B. S. Mausumbaev . 343 22

ECONOMICS OF FOUNDATION CONSTRUCTION

Technical and Economic Evaluation of Precast and Monolithic Reinforced-Concrete Foundations under Columns of Industrial Buildings—R. Kh. Valeev 346 24

Economic Effectiveness of Pile Columns in Agricultural Construction—N. V. Zhukov . 352 27

UNDERGROUND STRUCTURES

Determining Displacement of Walls of a Cylindrical Cavity beneath a Local Circular Load (Presented for Discussion)—Ts. Gomes and D. Ya. Byalik 356 29

Some Experience in Designing and Laying the Foundations for Large Bridges (Presented for Discussion)—T. I. Popov 359 31

Use of Combined Shell-Piles in the Construction of Deep Pile Foundations —N. M. Molokanov 364 33

ADVICE TO DESIGNERS AND INVESTIGATORS

Dynamic-Effect Coefficient for Low-Frequency-Machine Foundations Undergoing Vibrations—É. I. Chasov and Ya. D. Gimsel'berg 367 35

INFORMATION

Scientific and Technical Conference on Increasing the Effectiveness of Capital Investments and Quality of Construction—A. P. Khamov 370 37

Second Scientific Conference on Problems of Development of the Productive Forces of Yakutia ASSR—V. F. Zhukov 372 37

Fifteenth Scientific Conference of the Leningrad Civil Engineering Institute—S. N. Sotnikov 373 38

REVIEWS AND BIBLIOGRAPHY

I. A. Ganichev. Construction of Artificial Bases and Foundations—Reviewed by N. M. Sokolov 374 38

A. M. Gol'fandbein and L. A. Gelis. Nonuniform Vertical and Horizontal Deformations of Slump-Prone Soils—Reviewed by V. I. Kurtov 375 39

Arpad Kezdi. Stabilized Earth Roads—Reviewed by Yu. K. Zaretskii 377 39

Engl./Russ.

Number 6 November-December, 1969

Toward Further Improvement of Design and Construction	379	1
SOIL MECHANICS		
Foundations for Offshore Structures for the Oil Industry—A. A. Mustafaev and K. M. Mamedov	382	2
Determination of the Pressure Exerted by Granular Media on Ribbed Retaining Walls —V. S. Zelenskii	388	6
STRUCTURAL PROPERTIES OF SOILS		
Influence of Compaction and Density on the Mechanical Properties of Loose Soils —I. I. Cherkasov, V. V. Mikheev, N. M. Zobachev, Yu. M. Lychko, and V. P. Petrukhin	393	8
The Factor Determining the Beginning of Failure of Clay Soil—V. V. Zhikhovich	398	11
FOUNDATION ENGINEERING		
Design of Foundations Taking into Account the Superstructure Behavior and Inelastic Deformations of Soil and Reinforced Concrete—S. A. Rivkin	402	14
Behavior of Sheet Pile Retaining Walls in Soils Susceptible to Creep—A. Ya. Budin	407	17
UNDERGROUND CONSTRUCTIONS		
Results of Tests on a New Mechanized Shield—V. P. Samoilov, F. T. Skuibin, V. G. Budanov, A. M. Bocharov, V. É. Shperling, and Yu. I. Levitin	412	21
Determining the Densities of Clay Suspensions Used in the Construction of Underground Structures—E. M. Kol'tsov	416	23
CONSTRUCTION UNDER SPECIAL SOIL CONDITIONS		
Principles of Building Design on Soils Prone to Slump-Type Settlement Owing to Wetting —M. N. Gol'dshtein	420	25
FROM THE EXPERIENCE OF CONSTRUCTION ORGANIZATIONS		
The Effect of Normal Forces of Frost Heaving on Deformation of a Construction in Progress—E. I. Orlov	424	27
ADVICE TO DESIGNERS AND INVESTIGATORS		
A Slide Rule for Determining the Index Properties of Soils—Ya. V. Yurik	428	30
Determination of the Width of a Strip Footing—B. I. Levitskii	430	31
INFORMATION		
Problems of Seismicity of Bases and Foundations Discussed at the Fourth World Conference on Earthquake Engineering—D. D. Barkan and Yu. G. Trofimenkov	431	32
The International Conference on Field Investigation of the Properties of Soils and Rocks —M. I. Smorodinov	435	33
Conference on the State and Outlook of Scientific Research in the Field of Soil Mechanics and Foundation Engineering—E. A. Slavorosova	437	34
Conference on Procedures for Determining the Bearing Capacity of Piles —R. M. Narbut	440	35
CRITICISM AND BIBLIOGRAPHY		
Yu. G. Trofimenkov (Editor). Handbook for Designers of Complex Bases and Foundations—Reviewed by M. N. Gol'dshtein	442	36
N. A. Tsytovich (Editor). Proceedings of the Seventh International Conference on Soil Mechanics and Foundation Engineering	444	36
Bases, Foundations, and Underground Structures. Collection No. 58 of Articles of the Scientific-Research Institute for Foundations and Underground Structures	446	37
L. R. Stavnitser. Deformations of Soils and Structures under Impact Loading —Reviewed by G. A. Geniev	448	38

INDEX

Author Index, Numbers 1-6, 1969 453
Tables of Contents, Numbers 1-6, 1969 455